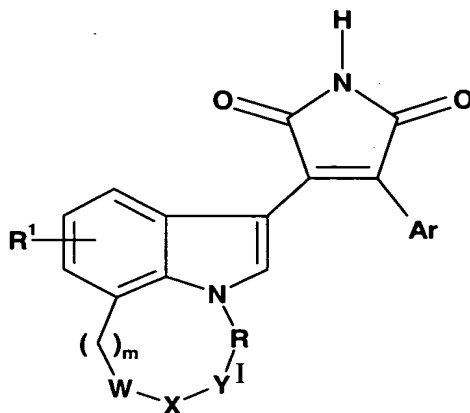


Amendments to the Claims

Claim 1 (original) A compound of Formula I:



where:

R¹ is hydrogen, halo, or C₁-C₄ alkyl;

m is 0, 1, 2, 3, or 4;

R is -(CH₂)_n-, -CH(CH₃)-, -C(CH₃)₂-, -CH₂-Q¹-CH₂-, or -CH(OH)-CH(OH)-CH₂-;

Q¹ is CH(OH) or carbonyl;

n is 0, 1, 2, 3, or 4;

W-X-Y is -CH₂-CH₂-CH₂-, -CH(R^{3'})-N(R²)-CH(R³)-, -N(R⁴)-C(O)-CH₂-, -C(O)-Q²-CH₂-, -CH(R^{3'})-O-CH₂-, or -CH(R^{3'})-N(R⁴)-C(O)-;

Q² is -N(R⁴)- or -CH₂-;

R² is hydrogen, -(C₁-C₄ alkylene)-R⁵, C₅-C₇ cycloalkyl, tetrahydropyran-4-yl, pyridinyl, pyrimidinyl, triazolyl optionally substituted with amino, benzothiazol-2-yl, -C(S)-(morpholin-4-yl or C₁-C₄ alkoxy), -C(NR¹⁶)R¹⁷, -C(O)R⁶, -CO₂R⁷, -CO(NR⁸R⁹), -SO₂(NR⁸R⁹), -SO₂(C₁-C₄ alkyl), or an amino acid residue;

R³ and R^{3'} are independently selected from the group consisting of hydrogen and C₁-C₄ alkyl provided that only one of R³ and R^{3'} may be C₁-C₄ alkyl;

R⁴ is hydrogen or C₁-C₄ alkyl;

R⁵ is hydrogen, pentahaloethyl or trihalomethyl, cyano, hydroxy, C₁-C₄ alkoxy optionally substituted with C₁-C₄ alkoxy, C₃-C₆ cycloalkyl, phenyl optionally substituted with up to three substituents independently selected from the group consisting of halo and C₁-C₄ alkoxy, pyridinyl, imidazolyl optionally substituted on a nitrogen atom with C₃-C₆ cycloalkyl,

morpholin-4-yl, pyrrolidin-1-yl, $-\text{CO}_2\text{H}$, $-\text{CO}(\text{C}_1\text{-C}_4 \text{ alkoxy})$, $-\text{CO}(\text{NR}^8\text{R}^9)$, $-\text{NR}^8\text{R}^9$ or - (morpholin-4-yl)carbonyl;

R^6 is hydrogen, $\text{C}_1\text{-C}_{10}$ alkyl optionally substituted with up to three halo substituents, 1-amino-2-methoxyethyl-1-yl, $\text{C}_3\text{-C}_6$ cycloalkyl, pyridinyl optionally substituted with $\text{C}_1\text{-C}_4$ alkyl, trifluoromethyl, carboxyl, or $(\text{C}_1\text{-C}_4 \text{ alkoxy})\text{carbonyl}$, pyridinyl-N-oxide, pyrazinyl, pyrimidinyl, imidazolyl, morpholin-4-yl optionally substituted with up to two $\text{C}_1\text{-C}_4$ alkyl groups, [1,4]oxazepin-4-yl, azetidin-4-yl, tetrahydropyran-4-yl, 3-methyl-6,7-dihydropyrrolo[1,2-a]imidazol-6-yl, piperazin-4-yl optionally substituted in the 4 position with phenyl or $\text{C}_1\text{-C}_4$ alkyl, pyrrolidin-1-yl, piperidin-1-yl optionally substituted in the 4-position with oxo or geminal dimethyl, piperidin-4-yl optionally substituted in the 1-position with $(\text{C}_1\text{-C}_4 \text{ alkoxy})\text{carbonyl}$ or $\text{C}_1\text{-C}_4$ alkyl, or $-(\text{C}_1\text{-C}_4 \text{ alkylene})\text{-R}^{10}$;

R^7 is $\text{C}_1\text{-C}_6$ alkyl optionally substituted with halo, 2-methoxyethyl-1-yl, $-(\text{C}_1\text{-C}_2 \text{ alkylene})\text{-(morpholin-4-yl or pyrrolidin-2-on-1-yl)}$, or phenyl optionally substituted with one or two substituents independently selected from the group consisting of halo, $\text{C}_1\text{-C}_4$ alkyl, $\text{C}_1\text{-C}_4$ alkoxy, and trifluoromethyl;

R^8 is hydrogen or $\text{C}_1\text{-C}_6$ alkyl optionally substituted with $\text{C}_1\text{-C}_4$ alkoxy;

R^9 is hydrogen or $\text{C}_1\text{-C}_6$ alkyl optionally substituted with $\text{C}_1\text{-C}_4$ alkoxy;

R^{10} is $-\text{OCH}_2\text{CH}_2\text{OCH}_3$, $-\text{NR}^{14}\text{R}^{15}$, $\text{C}_3\text{-C}_6$ cycloalkyl, morpholin-4-yl, thiomorpholin-4-yl, 1,1-dioxothiomorpholin-4-yl, piperidin-1-yl, pyrrolidin-2-yl optionally substituted at the 1-position with $\text{C}_1\text{-C}_4$ alkyl, or imidazolyl optionally substituted with nitro;

Ar is benzofur-4-yl, benzofur-7-yl, benzothien-4-yl, benzothien-7-yl, 1-(R^{11})benzimidazol-4-yl, 1-(R^{11})indol-4-yl, indol-7-yl, isoquinolin-5-yl, 2,3-dihydrobenzofur-4-yl, 2,3-dihydrobenzofur-7-yl, 1,3-dihydroisobenzofur-4-yl, 1,3-dihydroisobenzofur-5-yl, benzo[1,3]dioxol-4-yl, benzo[1,3]dioxol-5-yl, 2,3-dihydrobenzo[1,4]dioxin-5-yl, 2,3-dihydrobenzo[1,4]dioxin-6-yl, 2',2'-difluorobenzo[1,3]dioxol-4-yl, or 2',2'-difluorobenzo[1,3]dioxol-5-yl each optionally substituted in the phenyl ring with substituents R^{12} and R^{13} , or Ar is a group selected from imidazo[1,2-a]pyridin-3-yl optionally substituted with one or two substituents independently selected from the group consisting of halo, amino, $\text{C}_1\text{-C}_4$ alkyl, $\text{C}_1\text{-C}_4$ alkoxy, benzyloxy, cyano, and trifluoromethyl, 5,6,7,8-tetrahydroimidazo[1,2-a]pyridin-3-yl, imidazo[1,2-a]pyridin-5-yl, imidazo[1,2-a]pyrimidin-3-yl optionally substituted with amino, imidazo[1,2-c]pyrimidin-3-yl, imidazo[1,2-a]pyrazin-3-yl, imidazo[1,2-b]pyridazin-3-yl, imidazo[2,1-b]thiazol-3-yl, thiazolo[3,2-b][1,2,4]triazol-6-yl, furo[3,2-c]pyridin-7-yl optionally substituted with halo or $-\text{NR}^{14}\text{R}^{15}$, thieno[3,2-b]pyridin-7-

yl, pyrazolo[2,3-*a*]pyridin-3-yl, pyrazolo[1,5-*a*]pyridin-3-yl, or 4,5,6,7-tetrahydropyrazolo[1,5-*a*]pyridin-3-yl;

R^{11} is hydrogen, C_1 - C_4 alkyl, or $-(CH_2)_p-G$;

R^{12} is halo, hydroxy, amino, C_1 - C_4 alkoxy, $-NHC(O)(C_1-C_4 \text{ alkyl})$, or $-O-(CH_2)_p-G$;

R^{13} is halo;

p is 2, 3, 4, or 5;

G is hydroxy or $NR^{14}R^{15}$;

R^{14} and R^{15} are independently selected from the group consisting of hydrogen and C_1 - C_5 alkyl;

R^{16} is hydrogen or cyano,

R^{17} is $-NR^8R^9$, C_1 - C_4 alkyl, morpholin-4-yl, or piperidin-1-yl; or a pharmaceutically acceptable salt thereof, provided that when n is 0, $W-X-Y$ is not $-CH(R^3)-N(R^2)-C(O)-$.

Claim 2 (original): A compound of Claim 1 where Ar is benzofur-4-yl, benzofur-7-yl, or 2,3-dihydrobenzofur-7-yl optionally substituted in the phenyl ring with substituents R^{12} and R^{13} .

Claim 3 (original): A compound of Claim 1 where Ar is imidazo[1,2-*a*]pyridin-3-yl optionally substituted with one or two groups independently selected from halo, C_1 - C_4 alkyl, or C_1 - C_4 alkoxy.

Claim 4 (original): A compound of any of Claims 1, 2, or 3 where $W-X-Y$ is $-CH(R^3)-N(R^2)-CH(R^3)-$.

Claim 5 (original): A compound of Claim 4 where R^2 is $-C(O)R^6$.

Claim 6 (currently amended): A pharmaceutical formulation comprising a compound of ~~any of Claims 1-5~~ Claim 1 in combination with a pharmaceutically acceptable carrier, diluent or excipient.

Claim 7 (currently amended): A method of treating diabetes in a mammal comprising administering to a mammal in need of such treatment an effective amount of a compound of ~~any of Claims 1-5~~ Claim 1.

Claim 8 (currently amended): A method of treating Alzheimer's disease in a mammal comprising administering to a mammal in need of such treatment an effective amount of a compound ~~any of Claims 1-5~~ of Claim 1.

Claim 9 (currently amended): A method of inhibiting GSK-3 in a mammal comprising administering to a mammal in need of such treatment a GSK-3 inhibiting amount of a compound of ~~any of Claims 1-5~~ Claim 1.

Claim 10 (New): A method of stimulating bone deposition in a mammal comprising ~~administering to a mammal in need of such treatment~~ an effective amount of a compound of Claim 1.